



AN INJECTION MOLDING APPARATUS AND METHOD

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to an injection molding apparatus for molding a plurality of disc substrates, such as those used for an optical disc, and a molding method therefor.

2. Description of the Related Art

Conventionally, in order to mold a plurality of disc substrates, such as for an optical disc, it is practiced that a die having a plurality of cavities for forming a plurality of disc substrates is used, and a molten resin is injected into each cavity of the die to mold each disc substrate thereof.

In this method, however, there occurs a problem of a so-called over-pack, which results from clogging in a part of its injection piping communicating to any one of the cavities, thereby forcing the molten resin to bypass the clogged cavity and flow to another cavity, so as to over-pack the same with an excessive quantity of the molten resin. If such an over-packing occurs, the molten resin infiltrates into a gap of a parting surface of the die. In order to remove this infiltrated resin, maintenance work is required, which includes dismounting of the die from the molding machine, disassembling and cleaning thereof.

Thereby, there are such disadvantages associated with the related art that, not only is a continuous operation of the molding machine interrupted, in a case of molding a high density optical disc, such as a DVD or the like which requires a very high dimensional precision, because precision of a die closing device of the molding machine is deteriorated by disassembly, precision adjustment is further required,

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